DOCUMENT RESUME

ED 079 203 SO 005 977

AUTHOR Cherryholmes, Cleo H.
TITLE An Approach to Social Education.
PUB DATE 71
NOTE 66p.

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS Bibliographic Citations; Curriculum Development; Decision Making; Educational Change; *Educational Objectives; *Educational Philosophy; *Educational Theories; Elementary Education; Futures (of Society); Models; Relevance (Education); Secondary Education; Social Sciences; *Social Studies; Teaching Methods; Values

ABSTRACT

Within the last decade research and development activity in the social studies has ranged from curriculum development projects to innovations in instructional strategies. Little effort has been expended, however, to justify these changes in curriculum and instructional strategies. The author suggests in this essay some purposes for social education and explores implications of these purposes in terms of curriculum and instruction. A normative theory is outlined based on the assumptions that 1) social education should increase the ability of students to make socially effective choices; 2) enhance the ability of students to assess systematically alternative social futures; and 3) equip the student to be a continuous social learner. Such aspects of social studies education as different approaches to the structure of the social sciences, the use of a largely unarticulated decision-making model as the "heart" of the social studies, and citizenship education as the goal of social studies education are critiqued in terms of the traditional social studies literature as well as in terms of the rationale set forth in the paper. (Author/SHM)

ED 079203

PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL HAS BEEN GRANTED BY

Cleo H. Cherryholmes

TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE NATIONAL INSTITUTE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER."

AN APPROACH TO SOCIAL EDUCATION

Cleo H. Cherryholmes

Department of Political Science
Michigan State University
Summer, 1971

An earlier version was prepared for a conference on "Political Theory and Social Education," at Michigan State University, February 5-6, 1971 and was prepared under Grant OEG-0-7-2023 (725). I wish to thank Professors Paul Abramson, David Bell, Timothy Hennessey, Gary Manson, Frank Pinner, David Rohde, and Richard Snyder for many useful comments on earlier versions of this paper and Nancy Hammond who provided invaluable editorial assistance. Not for circulation, distribution, publication or quotation.

SP 005 907

FILMED FROM BEST AVAILABLE COPY

AN APPROACH TO SOCIAL EDUCATION

Cleo H. Cherryholmes
Department of Political Science
Michigan State University

Numerous research and development activities in social studies education have occurred in the last fifteen years. Little effort has been expended, however, to justify these changes in curriculum and instructional strategies. The purpose of this paper is, first, to outline a normative approach to social education, and second, to critique certain aspects of social studies education, such as different approaches to the structure of the social sciences, the use of a largely unarticulated decision-making model as the "heart" of the social studies, and citizenship education as the goal of social studies education. The critique is pursued in terms of the traditional social studies literature as well as the rationale set forth herein.

The approach advocated is grounded upon the following view of students.

> Axiom: Students are social actors engaged in purposive decision-making who process information in acquiring and acting upon normative and empirical beliefs about social phenomena.

Key implications drawn from this axiom focus on social education as (1) student centered, reflecting his purposes, (2) future oriented, in that all decisions are oriented toward future activity, and (3) based on normative and empirical belief systems. Given this view of students, three normative assumptions are advanced.

> Assumption 1: Social education should maximize the ability of students to make socially effective choices as they act within their social and physical environment.

Among the implications derived from this assumption are the following. First, values cannot be treated apart from value systems that are mainly non-hierarchical and shifting. Second, analysis of value systems must be tied to specific choice situations. Third, the preferred form of knowledge to be used in making decisions is scientific theory that permits explanation. Fourth, given this assumption, the social science disciplines do not provide an appropriate structure for social studies education. Fifth, effective decision-making should not be promoted without specifying a specific decision-making model, it is argued that the mixed-scanning model is appropriate.

> Assumption 2: Social education should enhance the ability of students to conceptualize alternative futures in patterns of individual behavior and social organization.

Two points follow. First, students will be treated as social planners exploring normative and empirical consequences of particular social arrangements. Second, students will be encouraged to create alternative social futures in terms of specified value systems including their own.

> Assumption 3: Social education should enhance the ability of students to be continual social learners.

From this assumption it is shown that the following are required. First, students must learn models of informal as well as formal learning, informal socialization as well as formal scientific methodologies. Second, students should learn correlates of learning new value systems as well as new empirical beliefs. Third, students should acquire skills that will maximize their ability to continue learning normative as well as empirical beliefs.

> Probably the most startling feature of twentieth-century culture is the fact that we have developed such elaborate ways of doing things and at the same time have developed no way of justifying any of the things we do (C. West Churchman, 1964, p. 1).

Within the last decade research and development activity in the social studies has ranged from curriculum development projects to innovations in instructional strategies. In many ways, then, elaborate ways of doing things in social studies classrooms have been developed. I submit that less attention has been paid to why we are doing the things we are. In this essay, I will suggest some purposes for social education and explore implications of these purposes in terms of curriculum and instruction.

My purpose is to outline a normative theory of social education. The importance of this effort lies in a, "need to know where we may be going in order to understand where we are" (Duncan, 1969, p. 105). This stance is, of course, correct with respect to a normative theory of social education because without such a theory there will be no criteria so that we can evaluate what we have done; we will not be self-conscious about our behavior. But empirical theories are also necessary to a complete theory of social education. Thus, the reverse is correct, "We need to know where we are so we will know where we are going" (Duncan, 1969, p. 105).

A complete theory of social education would necessarily include both normative assumptions and empirical theories.

Among the needed theories are those about the intellectual development of children, the relationship between emotion and intellectual development, the effectiveness of different instructional strategies with different children and subject-matter, and a variety of predictive theories about learning. These theories would fulfill the requirement that "we need to know where we are so we will know where we are going." My purpose, however, is to discuss normative assumptions that would enter a theory of social education and offer one answer to the problem that "we need to know where we may be going in order to understand where we are." An axion, three normative assumptions, and implications derived therefrom, that I consider to be a minimal or base-line conception of social education will be presented and discussed. That is, the assumptions are presented as core principles for a theory of social education, they are not intended to be exclusive or exhaustive.

The axiom merely makes explicit my presumptions concerning students as the target of social education. Given that the axiom captures important salient characteristics of individual social behavior, then the normative assumptions are:

1) Social Education should increase the ability of students to make socially effective choices;

2) Social education should enhance the ability of students to assess systematically alternative social futures; and

3) Social education should equip the student to be a continuous social learner.

I am arguing that social education need not confine itself to these three goals, but it should start with them. If these goals are to be maximized, then I will show that we should not be doing some of the things that we are, and we should be doing some things that we are not.

AN AXION AND DEFINITION

> **Axiom:** Students are social actors engaged in purposive decision-making who process information in acquiring and acting upon normative and empirical beliefs about social phenomena.

Decisions are not spontaneous. They are triggered by problematic situations that produce uncertainty and tension. Dewey discussed the source of learning:

> To realize what an experience, or empirical situation, means, we have to call to mind the sort of situation that presents itself outside of school; the sort of occupations that interest and engage activity in ordinary life. . . they give the pupils something to do, not something to learn: and the doing is of such a nature as to demand thinking, or the intentional noting of connections; learning naturally results. . . the most significant question which can be asked, accordingly, about any situation or experience proposed to induce learning is what quality of problem it involves (1966, p. 154).

Problematic situations may be of at least three kinds. First, the accuracy of our conceptions and theories of empirical phenomena is problematic and continually leads all of us into repeated reality testing exercises of one sort or another. Second, our personal and social values may be problematic--we do not always know what we want in a given situation. Third, if we can grant that our theories are relatively accurate and that we know what

we want, it is problematic how we should proceed from where we are to where we want to go. Regardless of the problematic situation, Dewey argued that it must have a particular quality.

> As a consequence of the absence of the materials and occupations which generate real problems, the pupil's problems are not his; or, rather, they are his only as a pupil, not as a human being (1966, p. 156).

Thus problems posed by or to students must be credible.

The axiom notes that in making decisions students are information processors. When humans process information, they first perceive the stimuli in terms of categories (events, groups, places), and then organize it conceptually according to rules that link perceived stimuli and the relationships among these rules relate to each other (Schroder, Driver and Streufert, 1967). Clearly students are likely to be aided in their decision-making if they have acquired appropriate information processing categories and rules to link these perceptions.

Key terms now to be defined are empirical and normative beliefs. Let it suffice that a belief is a conviction to which some probability of certainty is attached that a condition, event, or situation does or ought to exist. Students do not come to us tabulae rasae, without beliefs. They have acquired, are acquiring, and are acting upon empirical and normative beliefs about the social world.

Finally, what is decision-making?

> Decision-making is a sequence of activities which results in the selection of one course of action from a set of socially defined alternative courses of action intended to bring about

> the particular future state of affairs envisaged by the decision-makers (Snyder and Paige, 1959, p. 347).

The process of selection has received considerable attention from social scientists. It varies from one decision to another and from decision-maker(s) to decision-maker(s).

It should be apparent that considerable interdependence exists among the terms in the axiom. Depending upon what is problematic to whom suggests a particular decision-making process. It moves forward on the basis of the normative and empirical beliefs of the decision-maker(s) and is structured by the information processing skills of the individual or group. Of course, the final unexamined term, purpose, determines what will be considered problematic.

Students are making decisions about their purposes which are future oriented and are constrained by their present normative and empirical beliefs and information processing skills. In other words, they are constrained by what they think is true and good and their ability to understand and use new information. Given such a student, what should social education do?

EFFECTIVE CHOICES

> Assumption 1: Social education <u>should</u> maximize the ability of students to make socially effective choices as they ~~are not~~ act within their social and physical environment.

This means that students should become effective decision-makers. Figure 1 present one schematic of the decision-making process.

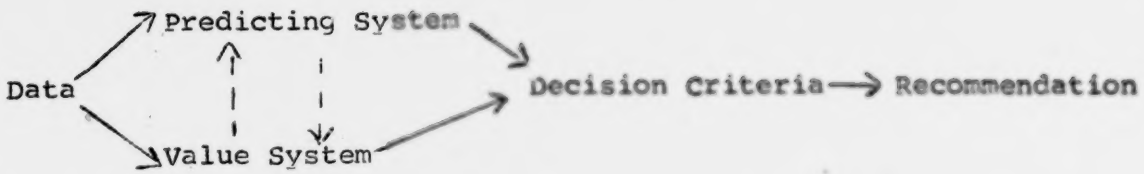

Figure 1: Decision-Maker (modified from Bross, 1953).

But the admonition to effective decision-making is not new to the social studies (Engle, 1960; and Kaltsounis, 1971). What has remained relatively unexamined in the literature, however, are the variations that decision-making can take. I will now turn to three elements of decision-making--what is a value system? what is a predicting system? what are major alternative decision-making models and what are their differences for social education?

Values, Value Systems, and Effective Choice.

> Without values, man is condemned to random search or haphazard groping (meehan, 1969, p. 11).

But what does having a value mean?

> To say that a person "has a value" is to say that he has an enduring belief that a specific mode of conduct or end-state of existence is personally and socially preferable to alternative modes of conduct or end-states of existence. . . the distinction between preferable modes of conduct and preferable end-states of existence is a more or less familiar one in the philosophical literature on values: it is a distinction between values representing means and ends, between instrumental and terminal values (Rokeach, 1968, pp. 159-60, see also Lovejoy, 1950 and Hilliard, 1950).

Rokeach's dicussion of a value must be considered within the context of his research on distinct choices. It is possible to separate preferred goals from preferred means analytically or in laboratory research. When a series of decisions is considered,

however, then it is obvious that the terminal value for Decision 1 becomes an instrumental value for Decision 2 because the former decision structures the later decision.

The multiplicity of values held by each individual is usually called a value system.

> The best model for a value-system is a web or net of webs stretched across the ground or experience, serving as one of the structures that unifies it. The intersections or terminations of strands represent values, the strands represent empirical or logical connections. The more important values serve as the focus for many strands of the web, and are not necessarily anchored to the ground. The peripheral strands--and some internal ones--terminate in points of attachment to the ground which represent the most specific applications of the value system. The net is extended by the enlargement of experience, which brings with it the need for new choices and new orderings of the alternatives, i.e., new tie-points at the periphery. The selection of these is governed by the principle of maximizing strength of to by minimizing strain. . . This model is deployed in a very different way from the tree-pyramid. There is no single apex/trunk: but there is recognition of the fact that some values are considerably more general than others. The impact of experience is felt throughout the system and not just at one end. The constant process of adjustment is represented more realistically, with experience operating on values at all levels: after all, experience sometimes obliges us to make choices between alternatives couched in very general terms (Scriven, 1966, p. 26).

A net of webs seems to be a good metaphor for a generalized value system of an individual, but a tree-pyramid seems more appropriate when describing a specific choice. Meehan (1969, p. 49) argues that values must be ordered transitively for a given choice situation: given different situations, values might be ordered differently.

This distinction between values and value systems has important implications for effective decision-making. First, in a single decision situation students must be able to rank order their preferences. Second, in a series of decisions students must know that the ranking of their values will vary and they must have the skills to identify these differences and their significance. Therefore it is important for curriculum developers and teachers in any value analysis or clarification exercise to make explicit the constraints of the lesson. Is freedom to be preferred over order in a particular situation, a class of situations, or in every instance?

Turning from the nature and structure of values and value systems, an inevitable and persistant problem is whether social studies should promote a particular value system and if so, which one. The axiom and effective choice assumption do not imply values that deal with end-states. An incredibly wide range of values have been promoted over the course of history; it seems presumptuous to advocate a particular value system merely because I happen to agree with it. Therefore, I find attempts to build a value system around a particular principle, such as equal treatment for all (Scriven, 1966), to be idiosyncratic and non-defensible in that all such systems are in principle, translogical (Friedrich, 1963, Chapter 13). Attempts to ground or justify a specific value system lead to an infinite regress in

which it always becomes necessary to justify the last named value. Table 1 summarizes a number of attempts to list desirable values.

The values listed in Table 1 represent viewpoints prominent in Western thought and American society. They include instrumental as well as terminal values. Bay, for example, seems primarily concerned with freedom in an instrumental sense:

> A belief in the supremacy of freedom of expression implies a concern that people so far as possible should have access to the values they actually or potentially want, and the word "potentially" refers to estimates of what they would want with progressing psychological freedom and autonomy. . . above all, it seems sensible also from a social engineering point of view to give top priority to the value of maximal freedom of expression, since this value, to the extent that it is achieved, automatically provides information about what other values are wanted, in what proportions, by what individuals. And freedom of expression assures each individual the opportunity to realize his different values, according to the relative importance each of them has to him (Bay, 1965, p. 13).

Lasswell and Kaplan (1963), on the other hand, seem primarily concerned with terminal values in that all persons seek, to some degree, respect, affection, wealth, well-being, etc., even though some are instrumental in achieving others, such as power and wealth.

Equality, which is found on several lists, may not only apply to social processes, such as participation in making public decisions, but to outcomes of those decisions as well; that is, how are well-being, wealth, security, etc., distributed in the society. Thus, values impoinge on social decision-making in at least four ways relevant for social education:

Table 1. Values Identified as Individually or Socially Desirable.

Authority	Values							
Brecht (1959) (Excerpts)	Equality	Liberty	Democracy	Happiness	Power	Harmony	The Golden Rule	
Dahl and Lindslom (1953)	Freedom	Rationality	Democracy	Subjective Equality	Security	Progress	Appropriate	
Williams (1953) (Excerpts)	Equality	Freedom	Science and Secular Rationality	Democracy	Individual Personality	Conformity	Efficiency-Progress	
Bay (1958)	Psychological Freedom	Social Freedom	Potential Freedom	Objective Security	Power			
Lasswell and Kaplan (1963)	Power	Respect	Rectitude	Affection	Well-Being	Wealth	Skill	Enlightenment
President's Commission on National Gaols (1960) (Excerpts)	Individual Dignity	Equality	Democracy	Education	Economic Growth	Health and Welfare	Technological Change	

1) Different decision-making processes may be evaluated:

2) Conditions requisite for given decision-making processes may be evaluated:

3) Decision outcomes in terms of value categories may be evaluated: and

4) The distribution of decision outcomes may be evaluated.

Values cannot be treated as independent from value systems, a variety of value systems have been advocated. Given these two conclusions, what does it mean to make effective choices and what can social education do to foster effective decision-making? A necessary condition for effective decision-making is that we know what we want, but if each of us has a multi-dimensional, potentially conflicting net of values, how do we determine what we want?

A deterministic answer to these questions does not seem possible at this time but approaches to a solution have been suggested. Warren (1970) argues that,

> The economist is able to make his calculations precisely because he precludes all but a single dimension in his analysis, the maximization of utility. Any counterpart normative sociological model for the community would have to go beyond this and specify what types of values are to be maximized--or at least optimized. (Warren, 1970, p. 223).

Etzioni concurs at a general level,

> Societal actors are committed to more than one gaol at each point in time, and, in most situations, there is more than one actor. . . Societal actors pursue several goals and values simultaneously, and there is neither a superior nor a common criteria. A typical list for the

> United States includes freedom, security, democracy, subjective equality, rationality, progress, and "appropriate inclusion." (From Dahl and Lindblom, 1953, pp. 25-54) Attempts at hierarchization of such lists seem doomed to failure, as there are no criteria that suggest the relative weights of the various values. (Etzioni, 1968a, p. 260).

Decisions may be isolated and analyzed or projected into the future for the sake of specific learning objectives, but the broader goals of social education cannot be served in this manner. As I noted above, values that are terminal in one decision become instrumental in later decisions. A dramatic recent example is the disclosure of United States decision-making concerning VietNam (Sheehan, et. al., 1971). The effective choice assumption is then conceptualized within a seamless fabric of social action.

A number of implications for social education can be derived from this consideration of values and value systems.

1. Social Education must not treat values as isolated preferences but rather as components of mainly non-hierarchical value systems. A value system instead of a value must be analyzed in making an effective choice. Value analysis and clarification exercises that consider values as isolated dimensions threaten to make students less effective decision-makers.

2. Value systems must not be treated in any sense as "absolute" or "ultimate" because the pursuit of first principles is an infinite regress whose conclusion is a translogical

assumption about the primacy of one value over another. Social education, then, should try to produce non-dogmatic students with relatively high levels of tolerance for conflicting views of the good society. It also means that we must be careful in the way that citizenship education is advocated to avoid promoting exclusive forms of community within which citizenship is defined.

3. If no value system can be promoted as "absolute" or "ultimate," then students' preferences must be treated as legitimate for exploration, analysis, and clarification. This reaffirms Dewey's concern that problems in the curriculum must be real for students and not contrived to suit the purposes of teachers, administrators, curriculum developers, or content discipline experts. Thus, value systems suggested by students as well as proffered by various adult groups must be accorded a place in social education.

4. Value analysis must be tied to specific choice situations. If a value system resembles a net instead of a hierarchy, then it becomes important to know which part of the value-network is grounded in the situation for this will determine which value(s) will dominate, which value trade-offs are allowable, and what the value means in an operational sense.

5. Students should be able to identify (1) modal social values and value systems in specific choice situations, and

(2) their values and value system in the same choice situation. In other words, where are student value systems in relation to the larger society and the various communities that constitute that society? In this context they should have the encouragement and opportunity to discover the sociological origins of their value systems in relation to that larger society.

6. Value systems do not exist unrationalized. Social education should assist students in exploring the cultural, religious, philosophical, and ideological bases of their value systems as well as those dominant in the larger society and other societies. This provides a broader approach to value systems other than the more restricted sociological model noted in (5) above.

7. All social action is future oriented however rooted it is in the past. It is not satisfactory, therefore, to let value analysis focus on decisions made in the past. Social education should prepare students so that they can map the future in a normative, preferred sense instead of tracing normative patterns in the past.

Predicting Systems and Effective Choice

A second kind of problematic situation mentioned at the outset has to do with our beliefs about social phenomena. For the time being I will take as given that we know what we want. What is problematic is whether beliefs about the world are accurate.

I will take social scientific knowledge to mean social scientific theory that provides explanation of classes of events or generalizations that may enter into such theories. Commonly accepted definitions of theory and explanation will be employed. According to Rudner (1966),

> A theory is a systematically related (deductive relatedness) set of statements, including some lawlike generalizations, that is empirically testable (p. 10).

According to Hempel (1965, p. 249) explanation has the following form.

Logical Deduction

$C_1, C_2, \ldots C_k$ Statements of antecedent conditions — Explanans

$L_1, L_2, \ldots L_r$ General Laws — Explanans

$\frac{}{E}$ Description of empirical phenomenon to be explained — Explanandum

I am relaxing two conditions Hempel requires for a satisfactory explanation; that general laws must enter the explanation and that the explanation must be true. The social sciences do not have laws that meet these requirements, and given the changing, dynamic nature of science it may always be premature to declare a given explanation true. I substitute, therefore, lawlike generalizations for laws according to Rudner's stipulation. I do not believe that other criticisms of this model are germane to my purposes (Meehan, 1968, Scriven, 1969, and Scheffler 1966).

It is important to distinguish between knowledge structures produced by social science and the processes by which these knowledge structures are created. This is the distinction

between the logic of discovery and the logic of justification. The logic of discovery encompasses those ways in which ideas are generated and developed. The logic of justification, however, encompasses the logical nature of knowledge and the means by which it can be empirically tested--this is independent of the origins of the idea. Insofar as students are consumers of knowledge I am more concerned in this section, with the logic of justification. Where students generate ideas I am concerned with the logic of discovery. The effective choice assumption is related to the logic of justification; later assumptions are more closely related to the logic of discovery.

Social scientific theories are information packed sets of statements about phenomena. This is why they are useful in making effective decisions. Criticisms that social scientific theories are incomplete or do not have the rigor of these in physics or astronomy miss the point. All theories, including those from the physical sciences, are in principle incomplete, and a science is not defined by how advanced it is but by its methodology (Kaplan, 1964).

All social scientific knowledge is not equal. Various social scientific formulations differ in reliability and validity. Curiously, however, whether different social scientific formulations are ranked in terms of sufficiency as posited by philosophers of science or ranked according to the information that is useful for making effective decisions,

the rankings are similar. First is deductive thory that provides scientific explanation and permits predictions (Hempel, 1965, Rudner, 1966, and Braithwaite, 1960). Second is concatenated or pattern theory (Kaplan, 1964), which provides for scientific explanation in a weaker sense but still permits some prediction. Third are empirical generalizations that do not permit explanation but allow for limited forecasting.

This ordering needs little justification in the context of science. Philosophers of science and social scientists generally agree on explanation as a goal. It may not be as obvious, however, that the ordering can be justified for effective decision-making. The principle employed is that the more we know about a choice situation, the more likely that we will make a decision so that we get what we intend. Since deductive theory, concatenated theory, and empirical generalizations provide decreasing amounts of information about any given situation, other things being equal, they are to be preferred in this order for making a decision.

The pursuit of social scientific theory as well as effective decision-making may lead some to consider social science as a value-free enterprise. I submit that neither the knowledge nor its pursuit is value-free. With respect to effective decision-making, the value system influences the predicting system because alternative strategies can be investigated only after importance has been assigned to different

outcomes. Outcomes will then be investigated in the order of greatest to least value. As probabilities of success are assigned to alternatives and accompanying costs are estimated, values may be re-ordered (thus the broken lines in Figure 1). If costs are equally distributed, values need not be re-ordered. Apparently normative and empirical beliefs are interdependent and situation-specific.

Many have commented on this interdependence of facts and values in social science (Churchman, 1964, and Mannheim, 1936). Lewis argues this in the following way.

> The question is not how we can validate an ought on the basis of an is, but how, or whether, we can validate any conviction as to objective matters of fact without antecedent presumptions of the validity of normative principles (Lewis, 1969).

These normative issues operate in a variety of ways.

> What aspects of individual and collective life are worth considering as a framework within which political processes are to be explained? The data of social and political processes are revealed to us in a variety of ways, depending on what we identify as a problem. The identification of a problem requires the use of categories or concepts which are responsive to our normative decisions concerning what we <u>wish</u> to view as problematic in a society. . . The primary questions to ask in the initiation of an inquiry, then, are normative not scientific ones. (Neubauer and Shapiro, 1970, p. 6).

But to argue that social science is subject to value judgments at many points is not to say anything new. Social science is guided by the purposes of social scientists. Social education is guided by the purposes of social educators. Unless the purposes are identical social educators should beware of the

impact of the values that social scientists bring to their work and product. The problem created for effective decision-making does not have a deterministic solution. Rather social educators must be careful that the content they select does not subvert open inquiry into student value systems discussed above.

The preceding discussion provides a context for considering approaches to social science content that have been advocated. An early definition of cognitive structure came from the Social Studies Curriculum Center at Syracuse University.

> At Syracuse we believed our unique contribution to be: 1. Identification of major concepts. from the social aciences and allied disciplines that appear to be appropriate for elementary and secondary programs in social studies (Price, Smith and Hickman, 1965, p. 2).

The project identified eighteen substantive concepts, five value concepts, and eight process concepts. Yet, as we know, theoretical terms are but one element in social science theory (Hempel, 1965, pp. 183-184). Kaplan (1964, pp. 47-49) distinguished between a perception, that which we observe and encode, a conception, the meaning and organization of the encoded message or information, a term, the label that we assign to the conception, and the concept, which is the inter-subjectively shared meaning attached to the term. In its simplest form a concept is a term defined by symbolic elements that provides organization for our perceptions. Thus, concepts and their

definitions tell us how we mentally organize our observations. Concepts make no knowledge claims.

Rather, they are useful as they contribute to a theoretical and explanatory formulation (Rudner, 1966). To remove concepts from such a formulation is likely to lead into a morass of abstraction. Kaplan speaks to this point when he notes that two components interact to fix the meaning of a concept. A conceptual structure provides a horizontal orientation for a concept; that is, concepts are defined by other concepts in a theoretical formulation. An attribute space provides vertical indication; that is, a concept is given an operational definition by the observables encompassed in the category it delimits.

If we think of concepts in lists rather than as constituents of scientific theory and explanation, it is not at all clear what we are talking about. If we remove a concept from the context of a theory or explanation, it is not clear what its function is either in the process or product of social science or in social education.

These comments on a conceptual approach to social education, notwithstanding, one particular approach to the utilization of social science concepts deserves attention. The Syracuse project and others attempted to identify key concepts that bridge the social sciences. The rationale seemed quite plausible: if a concept is used in more than one discipline, then its importance in the analysis of social behavior must accordingly be greater.

A Persuasive, reverse argument, however can be made. Concepts that seem to bridge the social sciences may be among the least useful to social education as well as to the social sciences. First, the criterion for selecting such concepts is the widespread use of the term, not its use in an explicit scientific theory and explanation. These two functions are not identical. This criterion does not provide for the selection of concepts that have clear definitions, in either horizontal or vertical attribute space, to use Kaplan's phrases. As a concept is used in a variety of disciplines, it acquires multiple theoretical and observational meanings. Unless it is grounded in a specific theory or situation, it may become intractable, and when it is grounded in a definite scientific theory and explanation or social phenomenon, we simply return to the definition of social scientific knowledge offered earlier.

A second approach to cognitive structure in social education was stated by Hanna and Lee,

> A generalization is a universally applicable statement at the highest level of abstraction relevant to all time or stated times about man past and/or present, engaging in a basic human activity (Hanna and Lee, 1965, p. 73).

We can quarrel immediately with this definition, even though it is a sufficient definition of a scientific law. Scientific laws are almost non-existent in social scientific research and theorizing. Hanna and Lee's definition eliminates the use of law-like statements and probablity statements--and thus rule

out two of the forms of scientific explanation outlined by Hempel (1965). The definition, then, seems too stringent for the purposes of either social science or social education. This particular approach to generalizations also creates a substantial problem in assigning theoretical or operational meaning to highly abstract statements that lack a theoretical context. When no theoretical context is specified, abstract generalizations are difficult to indicate operationally.

These points center on the particular definition of generalization employed. But there is a more fundamental, generic problem with this approach. Kaplan (1964) discussed a general relationship between the abstractness of a generalization (or proposition, hypothesis, or law-like statement as opposed to the truth certainty of a law) and its function. If a law is theoretical, it should function to explain lower-level generalizations. If a law is an empirical generalization it should function as a test of more abstract laws. If a law is not formulated theoretically, the function it performs is not well-defined. Social scientists inventory a field of research listing findings to construct concatenated theories and pattern explanations. When they do their generalizations are empirical. Social education employing empirical generalizations that included law-like sentences and probability statements could deal with concatenated theories and pattern explanations and produce social predictions. Such an approach would be similar to one

suggested above. Theoretical generalizations are seemingly stranded if put into lists, because no concatenated theories nor pattern explanations nor social predictions can be derived.

Lists of generalizations do not provide scientific explanations. Using individual generalizations also creates the problem of inductive inconsistencies (Hempel, 1965). Unless a generalization is located in a theory, the boundaries that delimit its application are unknown. Thus, when dealing with statistical, empirical statements, exceptions tend to be ignored. Another problem arises if inductive methods are used to teach a generalization. The generalization may be reified, treated as a fact, when all generalizations, empirical or theoretical, are only, in Popper's (1959) phrase, corroborated for the time being. Finally, if the lists of generalizations are not integrated into concatenated theories and pattern explanations, students will receive a disjointed and fragmented view of the social world. If they are integrated into theories and explanations, we return to our original position.

One point with respect to empirical generalizations in social education is that if they are used outside a theoretic framework, then they perform some of the functions for social education that aspects of magic and ritualistic behavior perform for primitive societies. They state presumed relationships without providing an explanation. Empirical generalizations relate factors but by themselves can never explain that

relationship. In primitive societies rituals are performed because they seem related to the occurance of a desirable event, such as rain, but the relationship, if any, remains unexplained. Therefore, inquiry exercises whose objective is to identify empirical relationships without providing explanation does not move us far toward effective decision-making.

Fenton (1968, pp. 50-57) suggested that analytic questions provide the structure of history. Fenton may be correct when he asserts that historians feel uncomfortable with theory, but questions are not derived from nature, but from nature comprehended. Nature is problematic, by definition, when expectations we have of a situation are not fulfilled, that is, when the theories we employ do not provide satisfactory explanations or permit predictions sufficient for our purposes. Questions derive from such theoretical concerns. These concerns provide criteria that tell us which questions are significant and which are trivial. Without theoretical concerns all questions are equal. If all questions are of equal importance, then one course for social education to follow is clear. If we pose questions derived from theoretical concerns, than, I submit, we should be explicit about it. Any program that uses analytic questions has some guidelines, unless all questions are treated as equal, but analytic questions cannot constitute the structure; they derive from it.

Implications for social education follow.

1. There is a hierarchy of social scientific knowledge that ranges from deductive theory, to concatenated theory, to empirical generalizations. The special virtue of higher forms of social scientific knowledge is that the limits and parameters of the formulation are specified: we know what it purports to explain and under what conditions. These limitations provide guidelines for applying the knowledge.

2. The social science disciplines do not provide an appropriate structure for social education, given the effective decision-making assumption. If a core structure of the social sciences existed in the most preferable form, deductive theory, then such a structure would be easily identified by anyone familiar with the social science disciplines. What theory exists is at a less comprehensive, moddle-range level with which the social sciences are replete. Extant theories are continually being reformulated as a result of further research. This dynamic makes the search for "a structure," implying something relatively static, a meaningless enterprise. A meaningful endeavor is to identify theories that provide explanations of well defined phenomena, such as, theories of arms races (Richardson, 1960) personality and behavior (Rogers, 1965), political ambition (Schlesinger, 1966), political coalitions (Riker, 1962), diffusion of innovations (Rogers, 1962), voting behavior (Abelson and Bernstein, 1963, and Pool,

Popkins, and Abelson, 1965), legislative voting (Cherryholmes and Shapiro, 1969) cognitive consistency or congruence (Rokeach, 1968, Osgood, 1955, Festinger, 1956 and Abelson, 1959), social stratification (Lenski, 1968), functions of social conflict (Coser, 1966), community conflict (Coleman, 1957) minority group relations (Blalock, 1967), macro-economics (Samuelson, 1967) social group relations (Homans, 1961), organizational behavior (March, Simon and Guetzkow, 1958, Cyert and March, 1963 and Katz and Kahn, 1966), and others.

3. Social scientific theories can make students more effective information processors by providing categories that guide perception and encoding processes and a structure that organizes the encoded perceptions. Lower levels of social scientific knowledge are not as useful in this respect. Concepts identify categories that guide our perceptions but assist little in the internal organization of those perceptions. Empirical generalizations provide a low level of internal organization but do not necessarily direct our attention to important phenomena.

4. Science assumes a set of values and has developed research techniques to reduce error in our empirical theories. Students should learn the values, norms, and processes of science in order to assess the quality of knowledge with which they are dealing. But science as presented in social education should not be identified with "the scientific method" for there

is no single scientific method and students should learn that scientific knowledge is always tentative and open. If the values, norms, and operations of science are taught in a responsible way, then students will learn that there are many scientific methods couched in a far-ranging methodology and that the product of science is a continually evolving body of knowledge.

5. The values of science are instrumental values. I refrained from advocating a particularistic value system in the previous section. In effective decision-making, however, one should use the best knowledge available. Therefore, scientific values, in an instrumental sense, contribute to effective decision-making.

6. I have argued that social scientific knowledge is not value-free. Scientists make normative judgments in selecting problems, research techniques, concepts, and explanations to be evaluated. Students should be aware of these biases to the extent that any of us can be aware of the way our moral stance affects the way we operate as scientists and educators. If we do not aim for this higher level of self-consciousness, then it is likely that unstated moral assumptions will quietly subvert and condition our beliefs and behavior.

Decision-Making and Effective Choice.

The third type of problematic situation is how we should proceed from where we are to where we want to go. Many models, theories, and explanations of decision-making have been developed.

Four of these, the rationalist, incrementalist, calculated-risk, and mixed-scanning, will be analyzed.

The rationalist model is the best known of the four.

> Put most simply, being rational in a decision situation consists in examing the alternatives with which one is confronted, estimating and evaluating the likely consequences of each, and selecting that alternative which yields the most attractive set of expectations (Goldberg, 1969, p. 5).

The well-known criticisms of this approach to decision-making need only brief mention here. First, the rationalist model requires almost infinite resources, e.g., time, information, etc., in order that (1) all alternative strategies leading to the desired outcome can be identified, (2) probabilities of success can be assigned to each alternative, and (3) the probable consequences of each strategy can be assessed. Thus, the demand for perfect knowledge is not reasonable (Cyert and March, 1963, p. 10). Second, the rationalist model assumes that the decision-maker has (1) a single value or (2) a value system ordered in a strict transitive hierarchy. Neither of these assumptions is necessarily reasonable. The rationalist model makes demands that cannot be fulfilled by either the predicting or value systems of a decision-maker (see Figure 1).

Critics of the rationalist model (Dahl and Lindblom, 1953, Lindblom, 1959, Braybrooke and Lindblom, 1963) have described a second decision model, incrementalism, that demands less of either a value or predicting system.

> Incrementalism is a method of social action that takes existing reality as one alternative and compares the probable gains and losses of closely related alternatives by making relatively small adjustments in existing reality, or making larger adjustments about whose consequences approximately as much is known as about the consequences of existing reality, or both (Dahl and Lindblom, 1953, p. 82).

Incrementalism describes many public decisions (Davis, Dempster, and Wildavsky, 1966) and has several advantages in guiding a decision-maker. First, the outcomes are relatively predictable as only small adjustments are made in the situation. Second, it provides a method of testing preferences because conflicting preferences are allowed. Third, because only minor adjustments are made, undesirable outcomes can be associated with a specific variable or small set of variables. Fourth, because small changes are made, decisions, may be reversed relatively easily when an undesirable outcome obtains.

The incrementalist model, however, has an inherent conservative bias because, first, it assumes that goals converge over time, that is, past and future goals do not diverge essentially from existing ones. Second,

> In incrementalist decision-making, rather than adjusting means to goals (as is called for by the rationalistic model), "ends are chosen that are appropriate to available or nearly available means." (Etzioni, 1963, p. 270).

Since the current situation may be defined by (1) a particular distribution of resources among a given set of social actors and (2) a particular distribution of values among a given set

of social actors, then any decision derived from applying the incrementalist model will necessarily reflects these two definitions.

Social education cannot meet the demands of the rationalist model any more than can policy makers. If social education were orgnized around the incrementalist model, it would reflect dominant social values and arrangements and would neglect deviant value systems. The incrementalist model is useful in making choices only for students near the modal position of their society in values and resources. For students closer to the finges of society, incremental decision-making can be a major frustration in the achievement of their desires.

A calculated risk decision is quite removed from incrementalism.

> Calculated risks are often necessary. . . (when) scientific methods have not yet produced tested knowledge about the probable consequences of large incremental changes, small changes will clearly not achieve desired goals, and existing reality is highly undesirable (Dahl and Lindslom, 1963, p. 85).

A calculated risk decision is required when a radically new situation or crisis arises. Thus, a great deal of uncertainty is related to a calculated risk deicison in predicting an outcome, but the model does not have an inherent normative bias. Social education could use a calculated risk decision model to explore radically different social arrangements, but the problem of relating these to current society would remain.

Etzioni's mixed-scanning decision model solves some of the problems identified above. Mixed-scanning involves two kinds of decisions--those about goals and those about means.

> Actors whose decision-making is based on a mixed-scanning strategy differentiate contextuating (or fundamental) decisions from bit (or item) decisions. Contextuating decisions are made through an exploration of the main alternatives seen by the actor in view of his conception of his goals, but--unlike what comprehensive rationality would indicate--details and specifications are omitted so that overviews are feasible. Bit-decisions are made "incrementally" but within the contexts set by fundamental decisions (and reviews). Thus, each of the two elements in the mixed-scanning strategy helps to neutralize the peculiar shortcoming of the other: Bit-incrementalism overcomes the unrealistic aspects of comprehensive rationalism (by limiting it to contextuating decisions), and contextuating rationalism helps to right the conservative bias of incrementalism (Etzioni, 1968A, p. 283).

The concept of a community of assumptions clarifies the meaning of a contextuating decision.

> A community of assumptions may be defined as the set of assumptions shared by the members of a societal unit which sets a context for its view of the world and itself (p. 173).

In the incrementalist model, the community of assumptions remains relatively unexamined, and, in the rationalist model, the community of assumptions seems so obvious and desirable that it remains unquestioned. In the mixed-scanning model, the community of assumptions is periodically examined and questioned. These periodic reviews up-date previous contextuating, fundamental decisions.

Dahl and Lindlom (1953) suggest one way that the values that enter a contextuating decision can be reviewed.

Table 2. Dimensions Along Which Values May be Characterized*

Influenced by Informed Knowledge of Consequences	Reflecting Ignorance of Consequences
High in Rank	Low in Rank
Intense	Apathetic
Stable	Transitory
Broad (multi-goal)	Narrow (single-goal)
Influenced by Identifications with many people (altruistic)	Influences by Identifications with few people ("selfish")

*Dahl and Lindblom, 1953, p. 311.

Broad (multi-goal) values tend to correspond to the notion of a community of assumptions and contextuating decisions, whereas narrow (single-goal) values tend to correspond to the value input required for rationalist or incremental decisions. To make effective choices, individuals must be self-conscious about their values; other dimensions, such as explicit-implicit, might be added to this schema.

The mixed-scanning model may be divided into the following steps (see Etzioni, 1968A, pp, 286-3, for a more detailed set of instructions).

1. When a student is presented with a situation that he defines as problematic--in the sense that the situation as perceived does not correspond with his desires--he scans broadly relevant preferences and any potential conflict among them.

2. Then, determine what costs of one value are acceptable in order to maximize or satisfice other preferred values (see Simon, 1959).

3. Then initiate inquiry or problem-solving activities to estimate the probable consequences of alternatives identified as likely to maximize or satisfice values selected in (2).

4. Implement alternative(s) selected in (3).

5. Review the selected strategies at periodic, scheduled intervals in the context of goals selected in (2).

6. Review the goal commitment at periodic, scheduled intervals in terms of costs incurred in other values.

Step (6) increases self-consciousness about the moral dimensions of our behavior and Step (5) reduces the unpredictability of our actions. If values and strategies are not periodically reviewed, then our future, moral as well as empirical may become trapped by our past. Table 3 summarizes the major characteristics of these decision models.

This discussion has several implications for social education.

1. Different decision-making models are appropriate for different situations. If values are problematic, then calculated risk and mixed-scanning are appropriate. If empirical theories are problematic, then a rationalist, problem-solving model is appropriate. If social planning is problematic, then mixed-scanning, incremental, and calculated risk models may be used. The importance of problem definition and the choice of a decision model is, thus, underscored.

2. Effective decision-making as a goal of social education should not be advocated without specifying the decisions to be

Table 3. Characteristics of Four Decision-Making Models as Viewed by a Decision-Maker

Decision Model		Current situation or Purpose of Decision	Quality of Knowledge	Value set Employed
Rationalist		Well-defined problem Needs solution	Predictions Relatively certain	Homogenous (single value dimension and/or strict transitive value hierarchy)
Incremental		Situation could be Improved	Predictions Relatively certain	Either stable or evolutionary
Calculated risk		Unacceptable current or projected situation	Predictions tenuous (Quality of knowledge unknown)	Homogenous for decision-makers--may be mixed in society represented.
Mixed-scanning	Contextuating	Provide broad guidelines for social action	Not applicable	Review of and/or revision of community of assumptions
	Bit	Implement general values	Predictions may be relatively certain or tenuous	Increased specification or community of assumptions

made. The complexity and normative biases of various decision models require that social educators reflect on what they mean by effective decision-making.

3. The mixed-scanning model seems to be the most appropriate in short-run as well as long-run decision-making. It assumes conflicting and changing preferences, does not have a conservative bias, and provides for future learning in values as well as empirical theories. By periodically questioning our assumptions and actions the level of consciousness is raised--which is essential for effective decision-making.

Conclusion

I have discussed effective decision-making in the context of three types of problems. But what about the content of such a program.

> In considering the question of relevance, it is possible to emphasize the scientific concept of truth as the only constraining criteria for social science. Such a detached outlook is hard to defend, however, in a world where poverty, violence, and starvation remain pervasive facts of everday life. It seems reasonable to demand that truth be relevant to solutions of the major problems and issues of society as a whole (Mills, 1959). Whether the problems be concrete, such as war or starvation, or abstract, such as the implementation of values of freedom and reason, it is possible to suggest important social problems and significant personal issues that deeply affect the human condition as a whole (Winter, 1968), (Smoker, 1969, p. 12).

To pursue an abstract conception of truth is to pursue a will o' the wisp. Knowledge is useful when it serves our purposes.

> When we ask here what should be explained, the prior question is always in terms of what one wants to do with a particular explanation which, in turn, relates to one's conceptions of desirable individual and collective consequences (Neubauer and Shapiro, p. 8).

Purposes determine what is relevant for the researcher: phenomena to be investigated, methodoligical considerations, selection of techniques, and finally the conceptions and interpretations invoked. Purposes for students are clearly related to their current goals and their projected future activities. If we overlay the student's present and future with Smoker's distinction between social problems and personal issues we can identify types of purposes that would guide the selection of social education content.

Pervasive social problems that are likely to be with us for some time are not hard to identify. James Reston identified three:

> The three great problems in the world today are how to bring population, military arms and machines under control. How to keep the fundamental issues in the front of our minds, this is what we'd like to know. . . Looked at in the larger perspective of the well-being of the people and some kind of sensible order in the world over the next generation, most of today's front-page news about Nixon's strategy in Indochina or Ed Muskie's presidential ambitions, or revenue sharing or cutting down the departments in Washington, or reorganizing welfare in the United States or getting a new wage-and-price policy in Britain seems almost trivial (Reston, 1971).

Even though, as Reston contends, it may be difficult to keep these problems before us, social education can at least focus attention on them. In the context of effective decision-making, students would be provided with substantive knowledge about such problems, currently held theories would be tested against reality, and normative issues associated with these problems would be analyzed.

Other means are available for selecting problems for study. Issues reflected in governmental budgetary allocations might be chosen because they reflect major values of a society and the nature of the environment as perceived by authoritative decision-makers in that society. A second approach would select issues related to attempts to change governmental budgets on the assumption that dynamic aspects of society are represented by groups interested in change. A third approach would take attempts to depict our social future twenty or thirty years hence and deal with topics that will require the greatest amount of social and personal adjustment. In my opinion, many topics identified by each of these methods would overlap. For example, large military budgets are likely to persist, making the study of international conflict, conflict escalation and management, and related topics of continuing importance.

With respect to personal issues, students will likely be concerned with values that Lasswell and Kaplan call deference values: affection, power, respect, and rectitude; and that the content selection methods noted above will focus on welfare values: well-being, wealth, skill, and enlightenment (see Table 1). It is also likely that students will identify problems related to personal issues, and the methods suggested above will tend to identify social problems. Students are likely then to display interest in social status in small groups, dynamics of small group conflict, etc.

The discussion, thus far, challenges a number of positions that have been accepted at one time or another in the social studies literature. Value analysis has been presented as meaningful only in the context of a specific choice and value system. The social sciences have been rejected as a structure for social education and three conceptions of structure in the social sciences were also rejected. Finally according to my analysis, decision-making in social education needs much more attention than it has previously received.

The broad outline of the discussion may be summarized as follows. The interaction of a value system and choice situation lead to problem definition, which may be of at least three kinds. The type of problem leads to the selection of a decision-making model. Then, in the context of a problem and a decision-making model, students employ the best knowledge available from social scientific theory and methodology. We are only part of the way to a theory of social education. Now I will turn to the second assumption.

ALTERNATIVE FUTURES

> Assumption 2: Social education should enhance the ability of students to conceptualize alternative futures in patterns of individual behavior and social organization.

The effective choice assumption is not by itself adequate for a theory of social education because its implied focus is on discrete decisions. Social life is characterized by a flow of choice situations that are often repetitive and cumulative. Few

decisions, such as suicide and full-scale nuclear war, are non-repetitive. Effective social decision-making does not ensure that students will (1) be aware of possible and probable alternative modes of individual behavior or (2) be aware of possible and probable alternative social arrangements and organizations. Effective decision-making does not entail either normative or empirical knowledge of alternative social futures.

Social scientific knowledge is necessary for effective decision-making, but over-reliance upon social scientific knowlege can trap our conceptions of the future. Smoker makes the point in the following way:

> . . . where "reality" is regarded as given, can trap social scientists in a state of mind that assumes any future must be conceived in terms of past and present patterns of behavior. Much present-day research in international relations by implication contains this assumption (Smoker, 1965; Raytheon, 1965). Relationships between variables assume a law-like quality, and human behavior and human nature become as constant as the speed of light. Perceived futures become trapped in perceived pasts, and such notions as "balance of power" become criteria for all "practical" future systems. This variant of self-fulfilling prophecies is particularly pernicious because social scientists should not only tell it the way it is, but also tell it the ways it could be (Smoker, 1969, p. 11).

The social scientific knowledge necessary for effective decision-making can imprison our conceptions when applied to the alternative futures assumption. In the former, knowledge is required in solving a more or less well-defined problem; in the latter, knowledge is required to outline preferred and possible social systems.

Searching among alternative futures involves normative as well as empirical planning. When a preferred set of terminal

values is not promoted, the investigation of alternative futures becomes an open search. Duncan argues it thus:

> The "function of prediction" Bell (1965) says, "is not . . . to aid social control, but to widen the spheres of moral choice." He might have added that for prediction to function in this way, it is important that it not be believed implicitly. For, as Bell is well aware . . . when a piece of social analysis, complete with a picture of the future, commands implicit belief, it becomes an ideology, making intellectual and moral prisoners of its believers (Duncan, 1969, p. 107).

The argument can be summarized as follows. First, advocating a particular value system cannot be justified on any grounds except that it might happen to agree with preferences of teachers, administrators, dominant groups in the community, etc. Second, social scientific knowledge can help eliminate inaccurate empirical beliefs about the world. Third, as theories and explanations become more accurate, predictions and forecasts become more feasible. Fourth, as predictions can be made with higher probabilities of accuracy, the consequences of decisions that reflect a given value system can be clarified, and thus can widen the spheres of moral choice. But in order to ensure the empirical and moral openness of the future we must guard against closed, deterministic conceptions of man and science.

> The notion that there is a "law" of social evolution or social development which controls the future course of events has proved to be one of the most powerful intellectual weapons used by modern enemies of the open society, as Karl Popper (1963) has argued so eloquently (Duncan, 1969, p. 107).

Whereas the effective choice assumption focused on the individual, the examination of alternative futures necessarily is concerned with social aggregates and the variety of forms they might take.

> It is just as important a social fact to discover what people think community ought to be as it is to describe what community is (Kaufman, 1959, p. 136).

Smoker (1971) forcefully argues that our conceptions of the world are reinforced as they are repeated and thereby reduce our options more then they need to be. In the context of peace research he makes the following statement,

> A feature of cirsis decision-making is the decrease in variance with regards to future options as a crisis intensifies, the ultimate in non-decision making and non-control occurring when but one option remains and there is no choice. A feature of decision-making in run away peace situations may be a continual increase in future options. Let many flowers grow (Smoker, 1971, p. 11).

Then he discusses a society based on the principles of mutual aid and maximization of psychological variance instead of viewing a society based on competition and socialization of psyches to an accepted norm. Progress, then, is measured by the degree of differentiation within society instead of by gross national product.

This approach to community is basically incompatible with many discussions of citizenship education as the goal of the social studies (Roselle, 1966; and Engle, 1971). This argument is quite simple. Citizenship is a derivative concept; it is derived from the idea of community, and the meaning of citizenship

varies across communities. Sometimes citizenship is promoted in terms of a mythical, ideal community that does not exist (Newmann, 1963). If such a community is treated as a preferred alternative future it need not be an impediment, but it usually is treated as a representation of reality.

The alternative futures assumption means that students will confront alternative forms of community, the norms by which such communities may be organized, and what citizenship means in these contexts. Students can explore implications of particular social arrangements, for example, societies that maintain racial segregation tend to develop a highly stratified class structure within each race, or in highly competitive societies, unsuccessful individuals, such as students who get low grades, will have a lower self-concept than successful individuals. Now citizenship education acquires a specific meaning but it varies from setting to setting and is defined by students.

Smoker's concern that conceived futures can become trapped in our past extends to social scientific knowledge employed in plotting those futures. A dramatic illustration is Olson's view of two "ideal" societies that correspond to basic, supposedly value neutral social scientific conceptions of society, one of which is economic, the other sociological.

> In essence, the economically ideal society would maintain a Pareto-optimal allocation of resources at every moment in time <u>and</u> at the same time continually change to the best attainable production functions as knowledge advances (p. 111).

> The degree of "integration" of a society is probably even more central, and the (Parsonian sociological) ideal is that this degree of integration should be maximized. The degree of integration, or "institutional integration," as it is more carefully called, is importnat not only because it affects the amount of alienation, but also because it affects in other ways the chances that the society will cohere (p. 112).
>
> The point is that the economic and sociological ideals described are not only different, but polar opposites: if either one were attained, the society would be a nightmare in terms of the other (Olson, 1968, p. 114).

He further argues that the social sciences differ not because they study different phenomena but because they have inherited different preconceptions of these phenomena, and thereby reach different conclusions.

Neubauer and Shapiro (1971) argue this position somewhat differently.

> Discussion of the social scientist as advocate have focused, heretofore, primarily on the completion stage of inquiry. Concept formation and selection might well be termed the meta-advocacy stage, for it is this process that largely determines the worth of the resulting explanations and theories (p. 10).
>
> Concepts are miniature theories or explanations which contain additional, more basic theoretical commitments. They serve to classify experience in a way that satifies someone's purpose. (p. 12).

The social scientist brings normative as well as empirical preconceptions to his research and theory. These preconceptions, create problems in exploring alternative futures.

One implication is that disciplinary interests should not prevail in defining the core of social education if one of our purposes is to investigate alternative futures. Otherwise,

students would merely adopt preconceptions of a particular discipline. The problem is avoided to some degree by letting the preconceptions of the various disciplines counteract each other.

If we admit the principle that concepts are chosen to satisfy a purpose, the disciplinary approach to social studies education can only have one purpose--to make school-children more like social scientists in preconception and knowledge. I submit that the purpose of social science and the purpose of social education are not identical, either normatively or empirically, but that the narrower goals of social science provides explanations and predictions that can inform the broader goals of social education. Thus alternative futures are normatively biased from the language used to the utopia envisioned. One way to proceed is to identify correlations among values in proposed futures.

> The approach employed will be to treat values and dimensions of choice, not prescribing at what point on these dimensions the indicated value should be accepted, but rather on the basis of empirical investigation the relationship between specific "loadings" of these value dimensions can be established. In some instances, a high loading on a value may facilitate the realization of a high loading on another value; in other instances, a high loading on one value may make difficult or impossible, empirically, the realization of a high loading on another value. (p. 223).
>
> The implications of specific value-loading choices in terms of "costs", available resources, or other values, can be empirically determined. The model thus becomes a series of equations rather than a specific Utopian prescription,

> just as the economist can contribute to the analysis of utility maximization without prescribing what preference scales are to be used. (Warren, 1970, p. 226).

In discussing effective decision-making, I argued that values must be analyzed as part of a value system as applied to a specific situation. The approach to alternative futures being suggested also makes both of those assumptions. The task is to identify under what conditions some values will be positively and others negatively related. Warren illustrated this approach in a review of research on American communities with respect to (1) community autonomy, (2) community viability, and (3) broad distribution of community decision-making power. He noted that the more autonomous a community, that is, the less it is dependent on federal or state aid, the less viable it is, in the sense that it can solve its own problems. The more autonomous a community, the more concentrated the decision-making process; community viability seems to be inversely related to widespread decision-making power.

A last aspect of the alternative futures assumption is the sheer complexity of the undertaking.

> There will be no pretense that we can gradually move towards the perfection of methods of anticipating what will actually occur, for such perfectibility is not logically possible, esthetically appealing, or morally inspiring. What we may hope to improve, if not perfect, is our sense of responsibility for making known the implications of our knowledge (Duncan, 1969, p. 115).

The logic of this argument is straightforward. As De Jouvenel noted:

> Identical initial conditions lead to identical results . . . Event B has come out of situation A. This much we know. But which traits of the complex situation A are meaningful for the production of B? (1967, pp. 85-6).

Cause and effect are logical, mental operations. We can never know whether (1) our observations are accurate, (2) our interpretations in the form of explanations and theories are based on correct inferences, or (3) whether observed patterns will obtain in the future.

Difficulties of predicting the future, however, are similar to problems of explaining the past. The magnitude of the problem is greater because the events or conditions, both initial and resultant, are further removed from our experience. But social predictions can still be useful, even though our predictions will always contain some error.

> A significant point about all three of the forecasts just described--declining intelligence (Lorimer and Osborn, 1934, and Cook, 1951), the garrison state (Lasswell, (1941), and rigidification of the social structure (Sibley, 1942)--as well as the forecasts of population decline summarized earlier, is that they do not become uninteresting or irrelevant just because they are wholly or partially inaccurate for the period immediately following their formulation. The tendencies that might issue in the realization of any of these prospects remain latent even if held in check by other tendencies whose influence is preponderant for the moment. If so, what really matters is not whether the forecasts in question are "right" or "wrong" but rather that they focus concern where it should be focused (Duncan, 1969, p. 105).

But where should our concern be focused? Our concern should be focused on aspects of individual behavior and social organization that we value. If the future is conceived in these terms, there is less chance that it will be a captive of the past.

In addition to error, a second aspect of complexity in social anticipation is the necessity of making multiple value commitments. The luxury of maximizing single values is not an option because costs in other values necessarily result in multiple commitments. To deal with this some have argued for cross-commitment in social planning, "the deliberate interaction of two programs aimed at different goals because each may be important to the goal of the other" (Starr and Carlson, 1963, p. 130), have advocated multi-factor models and probabilities (Etzioni, 1968); and have warned against, "the fallacy of single purpose planning " (Gilliam, 1967). Such far ranging commitments correspond to contextuating decisions discussed as part of effective decision-making. After contextuating decisions are reached, then available social scientific knowledge can be used incrementally to explore a particular future.

Social scientific knowledge was characterized, in the discussion of the effective choice assumption, as providing the best information available for making social choices. The social sciences, in the discussion of the alternative futures assumption, were characterized as having particular normative preconceptions that influence the theories and explanations produced. Since social scientific knowledge is a product of human activity it could hardly be any other way. I agree with both positions. However imperfect our social scientific knowledge of society

it has been produced by a system of activity designed to detect error and increase the accuracy of our theories.

In pursuing alternative futures, reliance upon social science need not be equal at all times. In identifying basic value commitments in contextuating decisions, where more degrees of freedom exist, it is best not to rely upon knowledge structures that can constrain our vision of the future--such as economics or sociology, as Olson demonstrated. After basic value commitments are outlined, then the social sciences can be a resource for specifying the consequences of a particular value and social system. An open search into human values as well as the extrapolation of current trends and the projection forward of theories are all part of the alternative futures assumption.

It should be abundantly clear that social philosphers and social scientists lack a good deal of prescience in two areas: (1) making simple social forecasts that are successful and (2) specifying the consequences of particular value choices. If experts can claim little success in identifying normative and empirical consequences of their choices, then it seems presumptuous to promote a particular world view for students.

What are the implications of the alternative futures assumption for social education?

1. To become informed about highly probable and possible futures students must acquire the knowledge and skills of social forecasting, as imperfect as that field is and is likely to remain.

These include the use of quantitative relationships (de Jouvenel, 1967), demographic, cohort, or ecological analysis and projections (Duncan, 1969), identification of sources of error in social forecasting, such as error in simple projections of growth curves and the tendency for social forecasts to be conservative (Ogburn, 1964).*

2. Students will be treated as social planners under the alternative futures assumption. They should explore as completely as possible the empirical and normative consequences of particular social arrangements. In other words, students will ask what is

---

* Duncan (1969, p. 115) summarizes a forecast of forecasting:

> In issuing responsible <u>forecasts</u> . . . we will self-consciously include several components.
>
> (1) a delineation of the trends or developments as projected, extrapolated, or constructed;
>
> (2) an assessment of mutual facilitation or incompatibility of the several trends as projected;
>
> (3) an estimate of the ecological ramifications of the trends, if realized;
>
> (4) an appraisal of the potential social feedbacks upon the trends and their ecological ramifications; and
>
> (5) a conspectus of the apparent range of alternatives that are open: X <u>can</u> happen if . . ., but Y <u>may</u> happen unless . . .

a politically and socially healthy community or society and derivatively what is political and social health at the individual level? These questions are relatively undeveloped in the social sciences as well as in the social studies. Inquiry into values and value systems should be as open as possible; inquiry into social scientific knowledge, that informs the prior choices, is necessarily more closed because students should not be expected to go through all or even most of the justification processes used by social scientists.

3. Students should be encouraged to think about the future as maximizing a value system. Planning for the future necessarily involves multiple value considerations, it is simply in the nature of the choice, and students should be apprised of it. In considering social survival, planners must be aware of the ecological consequences of policy decisions. The first point is that the logic of planning is, whether we know it or not, multiple goal planning; the second point is that, whether we like it or not, multiple goal planning seems to be necessary for our survival.

4. The social sciences do not provide an acceptable basis for a core structure for the social studies because some of the normative preconceptions of the social sciences are hidden and because the purposes of the social sciences are different from the purposes of social education, at least as

outlined here. The social sciences are necessary for social education, but they do not constitute a sufficient base for it.

Implicit in the effective choice assumption was the idea of planning for the future, since decisions are always future oriented. Implicit in the alternative futures assumption are knowledge and evaluation of the present. Thus each assumption assumes elements of the other. The logical consequence of these assumptions is that social education is a radically open, questing endeavor, it is student and future oriented. Smoker (1969) combines these two themes in discussing research:

> To make the most desirable the most probable, it may be necessary to integrate the two approaches into one methodology . . . Using models validated to correspond with realities, and realities validated to correspond with models, man might experience the way it is and create the ways it could be. By continually updating models and realities, a public dialogue, or more appropriately, a public multilogue, between realities and multiple alternative futures could be established (p. 13).

Given my assumptions, social education should engage students, educators, and social scientists in such a multilogue, institutionalizing such reflective exchanges.

CONTINUED LEARNING

Assumption 3: Social education should enhance the ability of students to be continual social learners.

The previous two assumptions focused on the student in the present, even though both in differing ways were concerned with his future. This assumption is concerned with how students will behave in the future, that they continue to make effective choices and explore alternative futures.

Gagne (1965, p. 172) says that learning occurs when an, "individual can now do something he could not do before." Kuhn (1963) states:

> . . . Learning is said to exist when, as the result of experience, a given stimulus (input) elicits a different response (output) than it did before. If we think of the X "response" as including the extraction of information from a given stimulus input, or think of a change of information state as a new "equilibrium" the above definition clearly includes learning in the ordinary sense (p. 53).

If we apply the concept of learning to elements of the effective choice model (see Figure 1), then we can divide learned responses into two categories:

> Simple learning is goal-seeking feedback . . . A more complex type of learning is the self-modifying or gaol-changing feedback (Deutsch, 1963, p. 92).

Simple learning occurs when an individual, consciously or not, attaches different probabilities to statements about reality; complex learning is the modification of a value system.

Educators sometimes view the school as a rational organization and learning within the school as simple learning. The value systems of administrators and teachers are embodied in ways that schools and classrooms are organized and the content and method of study. These assumptions in combination with rationalist decision criteria provide a basis for evaluating the performance of the school; how many Merit Scholars did we have this year? Alternative value systems that might be suggested by community groups or students that might lead to different performance criteria are not always entertained. Educators,

themselves, must be prepared to engage in complex learning if we are to maximize the ability of students to be continuous learners. If the school is dogmatic and does not engage in self-modifying behavior, then it seems unreasonable to expect that students from such an environment will behave any differently.

By reconsidering the effective choice assumption, the distinction between simple and complex learning becomes obvious. In simple learning, an individual's value system will guide his search for information and provide criteria for its evaluation. Decisions are corrected as different empirical beliefs are used to increase satisfaction. In complex learning, changes made in a value system alters the information search pattern. Complex learning occurs when a contextuating decision is made that substantially abandons a previously held community of assumptions. A secondary effect of complex learning is that the content of simple learning will change. Figure 2 incorporates these ideas into the decision-making schema.

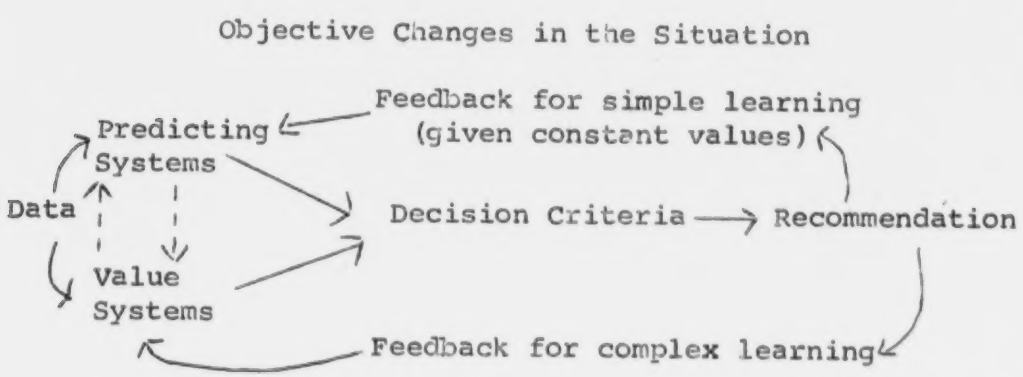

Figure 2. Learning in a decision-making framework

Deutsch related creativity to second-order learning.

> Deutero learning is second-order learning; its measurement would measure the speed at which an organization learns to learn, that is, the rate of improvement in its performance when confronted with a succession of different learning tasks . . . we may derive a test for evaluating the overall learning and behavior patterns of the organization. Has the learning of the organization been creative, that is to say, has it increased its range of possible intake of information from the outside world and its range of possible inner recombinations (1963, p. 169).

Some of these considerations can also serve as guidelines for learning in social education. Inquiry activities as conventionally discussed focus on simple learning (Massialas and Cos, 1966), while conditions under which value systems undergo change have been relatively ignored. If social education is to be problem- and task-oriented, then it is important to have measures of creativity, such as the range of information processed and the number of combinations attempted in trying to solve problems. Second-order learning can apply to complex as well as simple learning. In one sense creativity is an ability to adjust values to means as well as information to problem-solving.

The implications of the continued learning assumption fall into two categories; cognitive, what students should learn, and skills, what students should learn to do.

1. Students should be self-conscious about and be able to direct their learning by using models and theories of learning. Two kinds of models and theories are important. First, social education should present theories and explanations of informal

socialization and learning processes. Students should have some awareness of how they have acquired their beliefs about the world. This would seem to be a prerequisite if they are to examine their beliefs in a meaningful way as implied by the effective choice assumption. Second, a learning model that is self-correcting should be presented to students. Informal learning is usually not self-conscious learning; consequently erroneous as well as accurate information is perceived, organized, and stored. Social science constitutes such a learning model designed to detect inaccurate beliefs about phenomena and replace them with more reliable representations.

2. Students should acquire skills that will maximize their future learning opportunities. If knowledge is related to social power in that increased knowledge of alternatives increases opportunities for action, then the acquisition of learning skills increases the individual's future social power. Learning skills that correspond to simple and complex learning are implied here. Skills related to simple learning are essentially cognitive information-processing skills, processes that correspond to the theory and norms of social science. These skills aid individuals in either testing beliefs or making decisions consistent with a particular value system. Current social studies materials have such content although it is not usually presented in this context.

3. Students should not only acquire skills to analyze value systems, as implied by the effective choice assumption, but should learn about conditions under which value systems are likely to change and the correlates of adopting a new value system. They should learn that tension, frustration, and anxiety often accompany changes in values. At the social level challenges to established norms and symbols are a driving force behind many social movements. In order not to be disoriented by such challenges in the future, students should be provided with theories that explain these phenomena.

4. Rogers (1965) and others have demonstrated how aspects of therapy can be introduced into a classroom so that students can express and analyze to some degree their beliefs and values in an emotionally warm and open setting. Such techniques should be used as much as possible if students are to remain unthreatened when their values are challenged in the future.

5. In terms of continued complex learning, a behavioral goal of social education is to produce non-dogmatic students. Students should value inquiry and be receptive to new knowledge about the social world. This relates closely to a point made earlier; if students are aware of the tentative, dynamic nature of social scientific knowledge, then they should be receptive to new conceptions of the social world.

Conclusion.

Fitting a systematic review of curriculum materials, strategies of instruction, and educational research into this discussion would have required a much longer essay. A few well-known developments that converged with or diverged from my argument have been noted; many others could easily have been included. I have been concerned with explicating a normative view of social education and pursuing some of the more obvious implications..

The opening quote stated that we seem to have developed elaborate ways of doing things without justifying any of the things we do. I have outlined an approach to social education that has been justified given a particular view of students in combination with three values that I think should be maximized. It is futile, in my opinion, to seek first principles in such a justification procedure, for it would seem to lead to an infinite regress, for example, effective decision-making might derive from valuing the integrity of the individual, that in turn might derive from a belief that each of us possesses an immortal soul and thus continue in search of a first principle. Such a procedure eventually becomes a metaphsical question and would not necessary add to the picture of social education that I have depicted. Within certain limits, therefore I have justified a social education program on the basis of explicitly stated values. I agree that to ascribe to any such set of values

is a translogical leap that cannot be justified by appeal to some higher value.

Finally this theory, as with all theories normative or empirical, is open-ended. It is open in the sense that others may wish to add additional assumptions, delete a particular assumption, change a definition, or in some other way alter the internal logic of the statement. It is open in a second sense, in that it may apply, as it stands, to learning situations not now specified or anticipated. If this essay contributes in a responsible way to any such dialogue about social education in the United States, then my purpose will have been served.

References

Abelson, Robert P., "Modes of Resolution of Belief Dilemmas," Conflict Resolution. 3 (1959), 343-352.

Abelson, Robert P., and Bernstein, "A Computer Simulation Model of Community Referendum Controversies," Public Opinion Quarterly. 27 (1963), 93-122.

Bay, Christian, The Structure of Freedom (New York: Atheneum, 1965).

Bell, Daniel, "Twelve Modes of Prediction," in Julius Gould (ed.), Penguin Survey of the Social Sciences 1965 (Baltimore: Penguin Books).

Blalock, Hubert M., Toward a Theory of Minority Group Relations (New York: John Wiley & Sons, Inc., 1967).

Braithwaite, Richard B., Scientific Explanation (New York: Harper and Row, 1960),

Braybrooke, David, and Lindblom, Charles, Strategy of Deicison (New York: Free Press of Glencoe, 1963).

Brecht, Arnold, Political Theory (Princeton, N. J.: Princeton University Press, 1959).

Bross, Irwin D. J., Design for Decision (New York: The Free Press, 1953).

Cherryholmes, Cleo H. and Shapiro, Michael J., Representatives and Roll Calls (Indianapolis: The Bobbs-Merrill Company, Inc., 1969).

Churchman, C. West, Prediction and Optimal Decision (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1964).

Coleman, James S., Community Conflict (New York: The Free Press of Glencoe, 1957).

Coser, Lewis A., The Functions of Social Conflict (New York: The Free Press, 1966).

Cyert, Richard M., and March, James G., A Behavioral Theory of the Firm (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1963).

Davis, Otto A., Dempster, M. A. H., and Wildavsky, Aaron, "A Theory of the Budgetary Process," The American Political Science Review. LX (September, 1966), 529-547.

de Jouvenel, Bertrand, The Art of Conjecture (New York: Basic Books, Inc.: 1967).

Deutsch, Karl W., The Nerves of Government (New York: Free Press of Glencoe, 1963).

Dewey, John, Democracy and Education (New York: The Free Press, 1966).

Duncan, Otis Dudley, "Social Forecasting--the State of the Art," The Public Interest. 17 (Fall, 1969), 88-118.

Engle, Shirley H., "Decision Making: the Heart of Social Studies Instruction," Social Education. 24 (November, 1960), 301-306.

Engle, Shirley H., "Explaining the Meaning of the Social Studies," Social Education. 35 (March, 1971), 280-283.

Etzioni, Amitai, The Active Society (New York: The Free Press, 1968A).

Etzioni,, Amitai, "Shortcuts to Social Change," The Public Interest. 12 (Summer, 1968), 40-51.

Fenton, Edwin, "Structure and Inquiry," in Louis J. Herbert and William Murphy (eds.) Structure in the Social Studies (Washington: National Council for the Social Studies, 1968), 75-81.

Festinger, Leon, A Theory of Cognitive Dissonance (Evanston, Ill.: Row, Peterson, 1957).

Friedrich, Carl Joachim, Man and His Government (New York: McGraw-Hill Company, Inc., 1963).

Gagne, Robert M., The Conditions of Learning (New York: Holt, Rinehart and Winston, Inc., 1965).

Gilliam, Harold, "The Fallacy of Single-Purpose Planning," Daedalus (Fall, 1967), 1142-1157.

Goldberg, Arthur S., "Social Determinism and Rationality as Bases of Party Identification," American Political Science Review, 63 (March, 1969), 5-25.

Hanna, Paul R., and Lee, John R., "Generalizations from the Social Sciences," in Louis J. Hebert and William Murphy (eds.) Structure in the Social Studies (Washington: National Council for the Social Studies, 1968), 37-42.

Hempel, Carl G., Aspects of Scientific Explanation and Other Essays in the Philosophy of Science (New York: The Free Press, 1965).

Hilliard, A. L., The Forms of Value (New York: Columbia University Press, 1950).

Homans, George C., Social Behavior: Its Elementary Forms (New York: Harcourt, Brace and World, 1961).

Kaltsounis, Theodore, "Swing Toward Decision-making," Instructor. 80 (April, 1971), 45-56.

Kaplan, Abraham, The Conduct of Inquiry (San Francisco: Chandler Publishing Company, 1964).

Katz, Daniel, and Kahn, Robert L., The Social Psychology of Organizations (New York: John Wiley and Sons, Inc., 1966).

Kaufman, Harold F., "Toward an Interactional Conception of Community," Social Forces. 38 (October, 1959), 9-17.

Kuhn, Alfred, The Study of Society: A Unified Approach (Homewood, Ill.: Richard D. Irwin, Inc., and The Dorsey Press, Inc., 1963).

Lasswell, Harold D., and Kaplan, Abraham, Power and Society (New Haven, Conn.: Yale University Press, 1963).

Lenski, Gerhard E., Power and Privilege: A Theory of Social Stratification (New York: McGraw-Hill, Inc., 1966).

Lewis, C. I., In John Lange, (ed.) Values and Imperatives (Stanford, Cal.: Stanford University Press, 1969).

Lindblom, Charles E., "The Science of 'Muddling Through'", Public Administration Review. XIX (Spring, 1959), 79-88.

Lovejoy, A. O., "Terminal and Adjectival Values," Journal of Philosophy. 47 (1950), 593-608.

Mannheim, Karl, Ideology and Utopia (New York: Harcourt, Brace & World, 1936).

Massialas, Byron G., and Cox, Benjamin C., Inquiry in Social Studies (New York: McGraw-Hill Book Company, 1966).

March, James G., Simon, Herbert A., and Guetzkow, Harold, Organizations (New York: John Wiley and Sons, Inc., 1958).

Meehan, Eugene J., Explanation in Social Science: A System Paradigm (Homewood, Ill.: The Dorsey Press, 1968).

Meehan, Eugene J., Value Judgment and Social Science (Homewood, Ill.: The Dorsey Press, 1969).

Mills, C. W., The Sociological Imagination (New York: Oxford University Press, 1959).

Neubauer, Deane E., and Shapiro, Michael J., "Meta-Advocay in Comparative Political Analysis," University of Hawaii, Mimeo, 1971.

Newmann, Fred M., "Consent of the Governed and Citizenship Education in Modern America," School Review. 71 (Winter, 1963) 404-421.

Ogburn, William F., On Culture and Social Change (Chicago: The University of Chicago Press, 1964.)

Olson, Mancur Jr., "Economics, Sociology, and the Best of All Possible Worlds," The Public Interest. 12 (Summer, 1968). 96-118.

Osgood, C. E., and Tannenbaum, P. H., "The Principle of Congruity in the Prediction of Attitude Change," Psychology Review. 62 (January, 1955), 42-55.

Pool, Ithiel de Sola, Popkin, Samuel L., and Abelson, Robert P., Candidates, Issues, and Strategies (Cambridge, Mass.: Massachusetts Institute of Technology Press, 1965).

Popper, Karl R., The Open Society and Its Enemies (New York: Harper and Row Publishers, 1963).

Popper, Karl R., The Logic of Scientific Discovery (New York: Basic Books, 1959).

President's Commission on National Goals, The New York Times, Monday, November 28, 1960, pp. 22-23.

Price, Roy A., Hickman, Warren, and Smith, Gerald, Major Concepts for Social Studies (Syracuse, N. Y.: Social Studies Curriculum Center, 1965).

Ratheon Company, TEMPER: Technological, Economic, Military, and Political Evaluation Routine (Balford, Mass.: Ratheon Co., 1965).

Reston, James, "Primary and Secondary Questions," New York Times. Sunday, February 14, 1971, p. 11e.

Richardson, Lewis, Statistics of Deadly Quarrels (Pittsburgh: The Boxwood Press, 1960).

Riker, William H., The Theory of Political Coalitions (New Haven, Conn.: Yale University Press, 1962).

Rogers, Carl R., Client-Centered Therapy (Boston: Houghton Mifflin Co., 1965).

Rogers, Everett M., Diffusion of Innovations (New York: The Free Press, 1962).

Rokeach, Milton, Belief, Attitudes, and Values (San Francisco: Jossey-Bass, Inc., 1968).

Roselle, Daniel, "Citizenship Goals for a New Age," Social Education. 30 (October, 1966), 415-419.

Rudner, Richard S., Philosophy of Social Science (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1966).

Samuelson, Paul A., Economics: An Introductory Analysis (New York: McGraw-Hill, Inc., 1967).

Scheffler, Israel, "Explanation, Prediction, and Abstraction," in Arthur Danto and Sidney Morgenbesser, (eds.) Philosophy of Science (New York: The World Publishing Company, 1966).

Schlesinger, Joseph A., Ambition and Politics: Political Careers in the United States (Chicago: Rand McNally and Co., 1966).

Schroder, Harold M., Driver, Michael J., and Streufert, Siegried, Human Information Processing (New York: Holt, Rinehart and Winston, Inc., 1967).

Scriven, Michael, "The Covering Law Position: A Critique and an Alternative Analysis," in Leonard Krimerman, (ed), The Nature and Scope of Social Science: A Critical Anthology (New York: Appleton-Century-Crofts, 1969).

Scriven, Michael, Morality (Lafayette, Inc.: The Social Science Education Consortium, 1966).

Sheehan, Neil, et. al., The Pentagon Papers (New York: The New York Times, 1971).

Smoker, Paul, "Trade, Defense, and the Richardson Theory of Arms Races: A Seven Nation Study," Journal of Peace Research. 2 (1965).

Smoker, Paul, "Social Research for Social Anticipation," American Behavioral Scientist. XII (July-August, 1969), 7-13.

Smoker, Paul, "Anarchism, Peace and Control: Some Ideas for Future Experiment," Northwestern University, Department of Political Science, 1971, mimeo.

Snyder, Richard C., and Paige, Glenn D., "The United States Decision to Resist Aggression in Korea: The Application of an Analytical Scheme," Administrative Science Quarterly. 3 (December, 1958), 341-378.

Starr, Roger, and Carlson, James, "Pollution and Poverty: The Strategy of Cross-commitment," The Public Interest. 10 (Winter, 1968), 104-132.

Warren, Roland L., "Toward a Non-utopian Normative Model of the Community," American Sociological Review. 35 (April, 1970), 219-228.

Williams, Robin M., American Society: A Sociological Interpretation (New York: Alfred A. Knopf, 1956.

Winter, G., Elements for a Social Ethic (New York: Macmillan, 1968).